REMARKS

In response to the Office Action dated 10 March 2004, the applicant requests reconsideration of the above-identified application in view of the following remarks. Claims 1-33 are pending in the application. Claims 1, 3-5, 8-18, 20-23, 25-29, and 31-33 are rejected, and claims 2, 6, 7, 19, 24 and 30 are objected to. None of the claims has been amended.

Allowable Subject Matter

The Office Action indicated that claims 2, 6, 7, 19, 24 and 30 would be allowable if rewritten in independent form. The applicant reserves the right to rewrite claims 2, 6, 7, 19, 24 and 30 in independent form, but believes that the base claims from which they depend are allowable in view of the remarks presented below.

Rejections of Claims Under §103

Claims 1, 3-5, 8-13, 15, 16, 18, 20-23, 25-29 and 31-33 were rejected under 35 USC § 103(a) as being unpatentable over Daniel et al. (U.S. Patent No. 6,075,484, Daniel) in view of Yun (U.S. Patent No. 6,463,295) and Keskitalo et al. (U.S. Patent No. 6,345,188, Keskitalo). The applicant respectfully traverses.

Claim 1 recites a system comprising, among other elements, an array of transmit antenna elements, a transmit beamformer, and a power control unit to determine an antenna gain related parameter associated with a transmit beam generated by said transmit beamformer and to adjust a transmit power level of said system based on said antenna gain related parameter.

Daniel relates to a direction of arrival aided beamforming system. The system of Daniel is used to position beams and nulls in an antenna beam pattern. Daniel, Abstract. The Office Action states that Daniel is "silent on a power control unit (PCU) to determine antenna gain parameter and adjust transmit power based on antenna gain parameter." Office Action, page 3.

Yun relates to a "method for ongoing power control for a communication station with a multiple antenna array" without determining the direction of a transmit beam.

The Office Action did not show in Daniel or Yun a power control unit to adjust a transmit power level of a system based on an antenna gain related parameter as is recited in claim 1.

Keskitalo relates to a base station for phasing a transmission signal. Keskitalo, Title. Keskitalo describes that weighting coefficients Wi are selected in a way that an antenna pattern is achieved with a shape oriented in desired directions. Keskitalo, C6L53-60. The phasing "is only dependent on one parameter,..the angle of arrival." Keskitalo, C7L33-35. Keskitalo does not describe an antenna gain related parameter as recited in claim 1.

Therefore, even as combined, Daniel, Yun, and Keskitalo do not show all of the elements recited in claim 1.

Furthermore, the MPEP states the following with regard to rejections under 35 USC § 103: "To establish a *prima facie* case of obviousness ... there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." MPEP 2143. A Federal Circuit opinion states that the suggestion or motivation to combine references must be found in the prior art. MPEP 2143 citing *In re Vaeck*, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991). In addition, the Federal Circuit, in *In re Lee*, 61 USPQ2d 1430 (Fed. Cir. 2002), requires that the suggestion or motivation to combine references "be based on objective evidence of record." The Federal Circuit also indicated that the suggestion or motivation must be specific. 61 USPQ2d at 1433.

The Office Action provided several motivations for combining Daniel, Yun, and Keskitalo, but did not provide evidence of motivation in the prior art as is required by *In re Vaeck* and *In re Lee*. For example, addressing claims 1, 16, 22, 28, and 31, the Office Action states that "[i]t would have been obvious .... to modify Daniel, such that power control is supported for a multi-array antenna, to provide control of RF power output for optimal transmission of the RF signal and decrease interference with other transmitters." Office Action, page 3. With reference to Keskitalo, the Office Action states that "[i]t would have been obvious ....to modify Daniel in view of Yun, such that wireless transmission for an antenna array with power control also uses antenna array gain parameters to steer the beam in a certain direction, to provide optimal RF communication based on steering the array, antenna gain and power control parameters." Office Action, page 3. The Office Action did not identify any prior art evidence as the source of these suggestions for modifying Daniel, as is required by *In re Vaeck* and *In re Lee*. The other rejected claims are addressed in a similar manner in the Office Action.

The applicant respectfully submits that a *prima facie* case of obviousness of claims 1, 3-5, 8-13, 15, 16, 18, 20-23, 25-29 and 31-33 has not been established in the Office Action, and that claims 1, 3-5, 8-13, 15, 16, 18, 20-23, 25-29 and 31-33 are in condition for allowance.

Claim 14 was rejected under 35 USC § 103(a) as being unpatentable over Daniel, Yun and Keskitalo, and further in view of Liebendoerfer et al. (U.S. Patent No. 5,943,020, Liebendoerfer). The applicant respectfully traverses.

On page 8, the Office Action states that "[i]t would have been obvious .... to modify Daniel in view of Yun and Keskitalo, such that the common structure is adapted for desktop placement, to provide a small antenna system for use by mobile users." The Office Action did not identify any prior art evidence as the source of this suggestion for modifying Daniel, as is required by *In re Vaeck* and *In re Lee.*

The applicant respectfully submits that a *prima facie* case of obviousness of claim 14 has not been established in the Office Action, and that claim 14 is in condition for allowance.

Claim 17 was rejected under 35 USC § 103(a) as being unpatentable over Daniel, Yun and Keskitalo, and further in view of Roddy et al. (U.S. Patent No. 6,127,740, Roddy). The applicant respectfully traverses.

On page 9, the Office Action states that "[i]t would have been obvious .... to modify Daniel in view of Yun and Keskitalo, such that a duty cycle unit is used to determine average transmit duty cycle, to provide means for the PCU to adjust transmit power level as needed for optimal wireless transmission/reception." The Office Action did not identify any prior art evidence as the source of this suggestion for modifying Daniel as is required by *In re Vaeck* and *In re Lee.*

The applicant respectfully submits that a *prima facie* case of obviousness of claim 17 has not been established in the Office Action, and that claim 17 is in condition for allowance.

CONCLUSION

The applicant respectfully submits that all of the pending claims are in condition for allowance, and such action is earnestly solicited. The Examiner is invited to telephone the below-signed attorney at 612-373-6973 to discuss any questions which may remain with respect to the present application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date 10 JUNE 2004

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 10th day of June 2004.

Anne M. Richards

Name

Signature